

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007642**Date Inspected:** 08-Jul-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Xu Xian Ping	CWI Present:	Yes	No
Inspected CWI report:	Yes No N/A	Rod Oven in Use:	Yes No N/A	
Electrode to specification:	Yes No N/A	Weld Procedures Followed:	Yes No N/A	
Qualified Welders:	Yes No N/A	Verified Joint Fit-up:	Yes No N/A	
Approved Drawings:	Yes No N/A	Approved WPS:	Yes No N/A	
		Delayed / Cancelled:	Yes No N/A	

Bridge No: 34-0006**Component:** OBG crossbeams and cable trays**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG cross beam CB5

This QA received ZPMC Non Destructive Testing (NDT) notification No. 003623 and performed Magnetic particle Testing (MT) of approximately 15% of the welds previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated an MT report for this date. The weld designations are as follows: CB202A-001-011 and 020, CB202G-006-006, 008, 010, 012, 014, 016, 018 and 159.

This QA noted that the above mentioned NDT notification indicated segment green tags 1 thru 7 had been completed by the contractor. This QA noted that the parts indicated on tag 7 have not been fit and welded to this crossbeam. This QA contacted ZPMC QA identified as Mr. Zhong Wei to inquire as to why these welds were included on this notification. Mr. Zhong informed this QA that it was a mistake and he would re submit the notification with tag 7 omitted.

OBG cross beam CB7

This QA observed ZPMC qualified welding personnel identified as 251246 perform FCAW welding on weld joint identified as CB201G-013-142. ZPMC QC identified as Mr. Tian Lei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general

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compliance with WPS-B-T-2132-3.

This QA observed ZPMC qualified welding personnel identified as 059450 perform FCAW welding on weld joint identified as CB201G-007-019. ZPMC QC identified as Mr. Tian Lei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2132-3.

This QA observed ZPMC qualified welding personnel identified as 216575 perform FCAW welding on weld joint identified as CB201G-014-141. ZPMC QC identified as Mr. Tian Lei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2132-3.

This QA observed ZPMC qualified welding personnel identified as 054460 perform FCAW welding on weld joint identified as CB201G-007-014. ZPMC QC identified as Mr. Tian Lei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-Tc-U4b-F.

This QA observed ZPMC qualified welding personnel identified as 214453 perform SMAW welding on weld joint identified as CB201G-014-001. ZPMC QC identified as Mr. Tian Lei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2113.

OBG cross beam CB8

This QA observed ZPMC qualified welding personnel identified as 058174 perform FCAW welding on weld joint identified as CB202G-020-022. ZPMC QC identified as Mr. Lin Chuan Gang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2133.

This QA observed ZPMC qualified welding personnel identified as 019006 perform FCAW welding on weld joint identified as FB204-017-049. ZPMC QC identified as Mr. Lin Chuan Gang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-B-U2-F.

OBG cross beam CB10

During random visual inspection of the fit up on this crossbeam this QA discovered numerous fillet weld joint root openings in excess of the tolerances specified in AWS D1.5 2002. The joints in question are where the deck panel stiffeners pass through the floorbeams. The root openings range from 6mm to 8mm. AWS D1.5 2002 section 3.3.1 specifies fillet weld root openings shall not exceed 5mm for base metal thicknesses less than 75mm. This QA was unable to follow up with the contractors QC today concerning this issue. This QA will follow up and inform QC of this issue on 7/9/09.

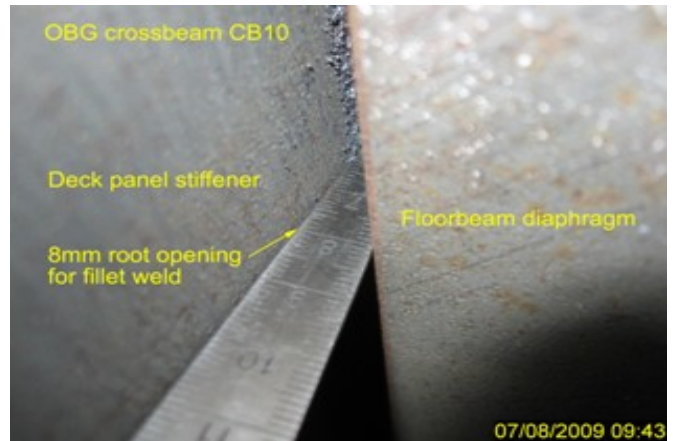
OBG bay 5

This QA received ZPMC Non Destructive Testing (NDT) notification No. 003626 and performed Visual Testing (VT) of 100% of the cable tray welds previously tested and accepted by ZPMC Quality Control (QC) personnel. The welds appeared to be in general compliance with the contract documents. The weld designations are as follows: CTS1E1 (E, G, H), CTS1D (L) and CTS1F (A, D).

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Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (15000422372), who represents the Office of Structural Materials for your project.

Inspected By:	Hall,Steven	Quality Assurance Inspector
Reviewed By:	Prue,Erik	QA Reviewer
